

# Smart Villages – Catalysts of inclusive development?

Thursday, 26th of November 2020  
5:15 pm to 6:45 pm (90min)

URP2020 | Track 5 | Digitalisation

## 1 General information

### Description:

The proposal while emphasizing the importance of Smart Villages in both, developing and developed countries, will critically reflect on technological needs, structural and institutional issues and operational aspects of successful smart villages while underscoring spatial effects and effective implementation of smart technologies in developing countries. It will highlight the global-local frameworks and principles that govern urban-rural linkages and suggest formulation of legislation and governance systems to strengthen urban-rural linkages and how to achieve them using innovation including digitalization, ICT-knowledge and effective approaches to accomplishing circular economy. The role of ICT knowledge in shaping new forms of governance, cooperation, partnerships and network strategies will be examined, underscoring the involvement of actors as champions of inclusive development. Tools and methodologies to engage stakeholders and develop capacities of the citizens to better access goods and services will also be highlighted. The session will illustrate best practices for north-south and south-south partnerships to strengthen smart villages as catalysts of inclusive development. Some of the questions to be addressed include (i) How do we characterize actors and stakeholders that foster inclusive development against the backdrop of innovation, information- and technology knowledge? (ii) What are the socio-spatial and behavioral context factors that support or hinder these new forms of urban-rural partnership? (iii) Do these actor-networks constitute new forms of governance? (iv) What is the nature of support needed by the actors and stakeholders to form sustainable partnerships and networks?

### Target Group:

Researchers and stakeholders

### Session Format:

Present and discuss  
6 short presentations (8min)  
30min panel and open discussion

### Chairs & Contact:

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**Julia Binder**, Ph.D. Brandenburgische Technische Universität (BTU) Cottbus- Senftenberg; [binder@b-tu.de](mailto:binder@b-tu.de)

**Ariane Sept**, Ph.D. Leibniz-Institut für Raumbezogene Sozialforschung (IRS); [ariane.sept@leibniz-irs.de](mailto:ariane.sept@leibniz-irs.de)

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## 2 Program

### Opening

- 5:15 - 5:25** Welcome and two words on time management (2min) Ph.D. Ariane Sept  
Short video on Publication "Smart Villages" (3 min) UN Habitat  
Introduction to the session, Ph.D. Arun Kashyap (5 min)

### Cluster 1: Resilience (8min each)

- 5:26 - 5:33** Moving towards Smart Villages in Greece: Exploring the local socio-spatial needs of disadvantaged populations, Ph.D. Evgenia Anastasiou (University of Thessaly / Greece)
- 5:34 - 5:41** Public digital literacy initiatives in rural areas: A case study, Christina Rundel (University of Groningen / Netherlands)
- 5:42 - 5:49** The strategy of cultural highland for the recovery of villages in Songyang County, Ph.D. Deyin Luo (Tsinghua University / China)
- 5:50 - 6:00** Discussion – Moderator, Ph.D. Julia Binder (Brandenburg University of Technology Cottbus-Senftenberg / Germany)

### Cluster 2: Digital and ICT led Urban-Rural Partnerships (8min each)

- 6:01 - 6:08** Digitization for resilient, sustainable and balanced cooperation between smart urban and smart rural territories, Gérard Peltre / Lea Gaudron (Rurality-Environment-Development / Belgium)
- 6:09 - 6:16** Smart villagers and digital pioneers? Towards a new definition of urban-rural partnerships, Ph.D. Julia Binder, Ph.D. Ariane Sept (Brandenburg University of Technology Cottbus-Senftenberg / Germany)
- 6:17 - 6:24** COVID-19 spatial spreading in a high density city: mobile phone location data analysis, predicting model and implication for urban planning, Ph.D. Junyoung Choi (Seoul Institute of Technology / South Korea)
- 6:25 - 6:35** Discussion – Moderator, Ph.D. Remy Sietchiping
- 6:35 - 6:45** Key points/Next steps from the Session (All Chairs)

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## 3 Abstracts by program sequence

### **Moving towards Smart Villages in Greece: Exploring the local socio-spatial needs of disadvantaged populations**

Rural areas in Greece and depopulation are directly intertwined while the abandonment of the countryside and dynamic urban mobilities are still observed. The present paper explores the possibilities of enhancing the resilience of rural areas in Greece, especially the demographically and socially disadvantaged ones, through the emergence of new approaches to local development. Recent research suggests that the implementation of Smart Villages strategies could strengthen the resilience and attractiveness of rural areas. In Greece, the concept of smart villages as an alternative model of rural development has been hardly studied.

The Greek rural areas constitute a major pillar of the country's social and economic fabric. Meeting the main spatial, social and economic needs of the local population of the disadvantaged and fragile areas contributes to a minimum level of social integration and improvement of living standards. In this context, systematic research is carried out in order to detect, at the local level, the socio-spatial needs of disadvantaged populations in Greece. This endeavor is expected to face multiple challenges such as high population aging, declining overall population, expected urbanization, rural underdevelopment, migration/mobility, low living standards and deprivation.

This real knowledge of the disadvantaged populations' needs is an essential condition for finally defining and proposing appropriate alternative approaches for the resilience of Greek fragile countryside areas by shaping smart villages.

Keywords: Smart villages, social demography, disadvantaged population, Greek rural areas, resilience, attractiveness

### **Public digital literacy initiatives in rural areas: A case study**

Our daily lives become more and more influenced by ICT and therefore it is crucial for people to be digitally included. Although European rural areas are often still disadvantaged in terms of fast internet connectivity (Salemink and Strijker, 2018), the digital divide is generally shifting from an accessibility to a usage difference, called the second-level digital divide (Büchi et al., 2016). Townsend et al. (2016) have shown that also rural SMEs often lack the knowledge or confidence to make use of digital tools and applications. Since a lack of digital capacities can have a negative impact on community resilience (Roberts and Townsend, 2016), rural areas are in need of a digital inclusion agenda tailored to the regional circumstances, to foster sustainability and resilience (Roberts et al., 2017). Municipalities also feel the urgency for a digital transformation (van der Ent and de Vries, 2017). These developments beg the question how do local governments try to improve digital literacy and stimulate broadband adoption in rural areas, and which obstacles do they encounter? To answer this question, we make use of a longitudinal case study in the North of the Netherlands. The case entails the establishment of a broadband information centre, based on a similar initiative in a nearby university city. Initially the centre was targeting local businesses, but this gradually changed over time under influence of various local political stakeholders. We observe that it is challenging to address the various requirements of the different potential users. A blend of target groups might help to create critical mass to reach a threshold, but at the same time this blend poses a threat to long-term commitment of particularly local businesses because they no longer see a supporting institute targeted at them specifically. In spite of the troublesome progress of the broadband information centre, we believe it presents valuable lessons for other communities and local governments.

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### **The strategy of cultural highland for the recovery of villages in Songyang County**

This article discusses the strategy of culture highland promoted by Songyang County in recent years for the recovery of villages. This strategy is composed of three tactics which are culture orientation, design tactics and art tactics.

Culture orientation is a clear summarization of existing resources which reflect local features and culture height. Songyang County is known for three brands of culture: Gardens and fields, reflect the difference of Songyang from other counties in Zhejiang Province. The fairyland in the south, attractive to the middle class in cities for the pursuit of cultural experience. The example of county for classical China, provides a working point for the state department to develop international communication which gifts Songyang a cultural height as the representative of China.

The design tactics refers to a professional tour route for architectural design different from ancient villages in Songyang on the base of high-quality architectural design works accumulated in recent five years. These high-quality works are basically generated by the historical tradition and site characteristics of their location which interpret with the three brands of culture. They connect the tradition with modernity and even enhance the vitality of tradition. To some extent, Songyang county has reshaped its cultural image with architectural design for which it is no longer the home of multiple ancient villages with rich traditional cultures, but a pioneering front for the imagination of future.

The art tactics refers to the worldwide measures of art aimed to attract talent and cultural brands for the establishment or event planning which have been actively implemented in Songyang County, including National Art College Dean's Forum, art exhibition, the settlement of hundreds of artists etc. These measures reflect the future picture of Songyang with imagination and superiority from the current time on the base of preserving its culture orientation.

### **Digitization for resilient, sustainable and balanced cooperation between smart urban and smart rural territories**

RED ([www.ruraleurope.org](http://www.ruraleurope.org)), an international association created in 1980, has campaigned since 2015 (with the support of the European Countryside Movement) in favor of a European Rural Agenda, echoing the European Urban Agenda, to energize intelligent cooperation between rural and urban areas that recognize each other as innovative development poles.

The use of integrated territorial development processes, with reference to the CLLD approach, as well as the recognition of rural territories as poles of development and innovation, as promoted by RED, are essential in this. This is also expressed by the definition of "Smart Eco-social village" validated within the framework of the European study initiated by DG AGRI and implemented by Ecorys, the Origin, Diversity and Territories Forum, and RED.

Our recommendations: Increase connectivity to very high speed internet and bet on Smart Villages / Smart rural territories to:

- Support the increase in teleworking in rural areas, food issues in short circuits ... (as highlighted during the Covid 19 lockdown)
- Foster new methods of governance and cooperation in rural areas and between urban and rural areas
- Boost economic and energy multifunctionality (Energy mix, etc.), sustainable mobility and public services, thanks to digital and social innovation;
- Optimizing and strengthening investment in human capital and collective capacities through education and lifelong training programs

As necessities: The reinforcement of cross-border cooperation, the reintroduction of the EAFRD in the common strategic framework, the inclusion, in the cohesion policy, of a minimum reserve of 5% for the integrated territorial development of rural territories; RED calls for them to be included in the recovery plan and in the EU's 2021-2027 political and regulatory corpus.

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### **Smart villagers and digital pioneers? Towards a new definition of urban-rural partnerships**

Although there is an expanding body of literature on smartness in the context of regional spatial development and planning – reflected for instance in debates on smart countries, digital villages, smart territories and smart regions – approaches to digitalization in this context are not yet fully understood. Among unclarities is a lack of knowledge about how regional governance arrangements form and act in order to support digitalization in rural peripheral regions.

Our paper investigates actors and stakeholders in urban-rural relationships that foster inclusive spatial development using ICT-knowledge in an innovative way. Against the backdrop of in particular smart regions and smart territory debates, it will examine the engagement of and interplay between local, regional and supraregional actors. Drawing on existing notions about e.g. smart villagers and digital pioneers, results will firstly propose a new categorization of stakeholders, and secondly reflect on their role in regional governance constellations that use digitalization as a catalyst and enabler of innovative spatial development strategies. The paper presents insights that were generated by the ongoing research projects “Smart Villagers” – a case study analysis of four German villages - and “Digital Pioneers”. Its main contribution is in an increased understanding of the formation of governance in regional spatial planning by means of ICT-knowledge, and thus a new reading of the interplay between “digital social innovation” (DSI) and “technological knowledge”.

### **COVID-19 spatial spreading in a high density city: mobile phone location data analysis**

South Korean approaches are known as one of the best practices in dealing with COVID-19. In addition to medical measures and social distancing measures such as the development of test kits, a high number of tests, and the strict application of face masks, the use of digital technology has played a significant role in reducing the spread of the virus. Contact tracing is an important way to pinpoint those who must undertake the COVID-19 test and where these contracted people have visited is an important source for further tests. Viral diseases are particularly detrimental to high-density and hyper-connected urban environments. However, Korean cities have maintained low numbers of confirmed cases without the implementation of citywide lockdown measures.

The Seoul Metropolitan Area (SMA), a case study area of this research, is intrinsically vulnerable to communicable diseases because of high-density environments – one of the highest population density cities in the world, requiring fine-tuned strategies that can be supported by digital technology. This research presents the spatial pattern of COVID-19 and proposes a model to predict the spatial spread that the Seoul Institute of Technology (SIT) has developed using contact-tracing technology. The research will pay attention to the following three elements.

First, the research will address urban density concerns in relation to the spread of COVID-19. Mobile phone location data can offer precise information for spatial and temporal analysis, which can be used to simulate future trends. Second, the research will discuss the changing land use patterns. During the COVID-19, the rise of online modes has been observed in almost all industries. Third, the research will examine how the analysis can better inform urban planning practices post-COVID-19.

Handout created by Paul Dröge